

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT

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EE-306

Key Solution

Quiz # 5 Sec.: 2 Ser.# I.D.# Name:

Circle the correct answer.

1. Two synchronous generators are to run in parallel. The first one has 4-poles and runs at a speed of 1800 rpm. If the second one has eight-poles, the speed at which it should run is
 - a. 1800 rpm.
 - b. 1200 rpm.
 - c. 900 rpm.**
 - d. None of above.

2. The V-curves of a synchronous motor shows relationship between
 - a. field current and back EMF (i.e., induced voltage).
 - b. load current and terminal voltage.
 - c. excitation current and load current.**
 - d. load current and excitation voltage.

3. If the field of a synchronous genera is over-excited, the power factor is
 - a. unity
 - b. leading
 - c. lagging**
 - d. more than unity

4. The speed regulation of a synchronous motor is
 - a. positive when the machine is normally excited
 - b. positive when the machine is overexcited
 - c. positive when the machine is underexcited
 - d. None of above**

5. The synchronous reactance in synchronous machines can be obtained from
 - a. armature current and load current under the same field current
 - b. excitation voltage and terminal voltage under the same load current
 - c. excitation voltage and armature current under the same load current
 - d. load current and the terminal voltage under the same field current**